

# Electricity

Electricity is the same thing as electrical energy. Electrical energy comes from a power plant, like one of the alternative energy plants discussed at this site. Several basic electrical properties are discussed here to give you a background of electrical information.

Voltage is the pressure that forces electrons to follow a certain path. It is represented by the letter V. Each component in a circuit is rated according to the amount of different variables that it can handle. For example, components are rated according to the amount of voltage that they can handle.

Current is the amount of electrons that are flowing through a circuit. Current is referenced by the symbol I in equations. If a circuit is given too much current, it heats up and either burns or explodes. This disaster occurs when people do not correctly estimate the amount of current that a component can handle.

Resistance occurs in every component of a circuit. Special components that only resist current are called resistors.

These components are rated with the unit Ohm, symbolized by the Greek letter  $\Omega$ . The letter R is used to represent resistance in equations. Four different color bands are found on a resistor, the first three actually indicate the resistance of the resistor.

These science concepts of electricity can be related using an equation. This equation is given below:

$$R = V / I$$

Quizzes are important for students and teachers because it shows the teacher how much the student knows and gives the student an idea of what concepts he still needs to work on. You can take a [quiz](#) based on the concepts of this page now.